CONCURRENT WORK SESSION
Thursday, November 1, 1990

STATE ECONOMIC GROWTH POLICY: PRESENT AND FUTURE

Moderator

Calvin G. Grayson
Director
Kentucky Transportation Center
University of Kentucky

Panelists

Merl Hackbart
Kentucky Budget Director

Jeff Noel, Executive Director
Management and Operations
Kentucky Cabinet for Economic Development

Robert N. Elliston
Director, Legislative Research
Kentucky Chamber of Commerce

Honorable John A. "Eck" Rose
Kentucky Senate Transportation Committee

INVESTMENTS IN ECONOMIC GROWTH: A NATIONAL PERSPECTIVE

Merl Hackbart

I appreciate being asked to be here this afternoon and I hope that I can provide some new insight and perspective regarding investment in infrastructure and transportation facilities and economic growth. By its very nature, it's a very broad topic. I think we all realize there is a relationship between economic development and the transportation system. But, it wasn't until recently that researchers, economists, and others began to attempt to identify that relationship more precisely. There have been a number of economic studies that have attempted to identify, at least to some degree, how investment in transportation and infrastructure influences the economic growth process, both regionally and nationally. But, this analysis is a difficult and unprecise process.

My approach this afternoon is to consider this topic from a broad, national viewpoint. I will attempt to decipher the transportation investment and economic growth process interrelationship, nationwide, by focusing on broad national aggregates.

Over the last couple of decades, we have become more concerned about the fact that productivity growth in the United States does not seem to be progressing as rapidly as it has in some other capitalistic economies, particularly Japan, and some European countries. With the opening of the Eastern European Bloc nations to more active international trade and economic enterprise, we probably can anticipate growth in productivity and economic competition in that area of Europe as well. Certainly, we have to be concerned about productivity as we look to the future. If we look at some relatively recent data, we find some rather interesting statistics about productivity growth in the United States as well as potential relationships between such growth and infrastructure/transportation investment.

During the period from 1951 to 1960, overall productivity growth in the United States was estimated to be about 1.7 percent per year. Such productivity growth increased slightly in the decade of the '70s to about 1.8 percent. While that productivity growth was not dramatic, the decade of the '70s witnessed a drop-off in productivity gains in the United States.

Merl M. Hackbart *currently is serving the Commonwealth as Budget Director. He also is Senior Associate Dean of the College of Business and Economics at the University of Kentucky and professor of Finance and Public Administration.*

Dr. Hackbart has served as director of the James W. Martin School for Public Administration.

One way to consider the broader issue is to compare United States productivity growth and public capital accumulation. During the period of 1.7-productivity growth in the '50s, the United States had about a four percent growth rate in the accumulation of public capital, using the term "public capital" fairly broadly. By comparison, in the decade of the '60s, there was a substantial growth in public capital accumulation and, a relatively high growth in productivity, at least for our standards (4.6 and 1.7 percent, respectively). In the '70s, we find a relatively low growth in productivity--about 7/10ths of one percent, but a very sharp drop-off in terms of public capital accumulation (about 2 percent). The same relationship exists in this decade where productivity increases are relatively modest .7 to .8 percent, with investment in public capital growing at less than one percent.

The basic point is that there is a fundamental relationship between capital assets and productivity. To the degree that when we invest in more public capital (roads, highways, airport systems, and other public investments), we reduce the cost of production in the private sector. As a result, the competitive position of the private sector in the international economy is enhanced.

The basic point which is suggested by these data is that we have begun to under-invest in public capital. For a long period of time in the United States, analysts have suggested that we may be under-investing in private capital, as indicated by lower savings rates as compared with foreign countries. Those data, however, provide cursory evidence that we may be under-investing in public capital as well. Moreover, capital accumulation is relatively low across the board in the United States, which provides broad concern regarding our ability to sustain productivity gains which are critical in light of increased international competition.

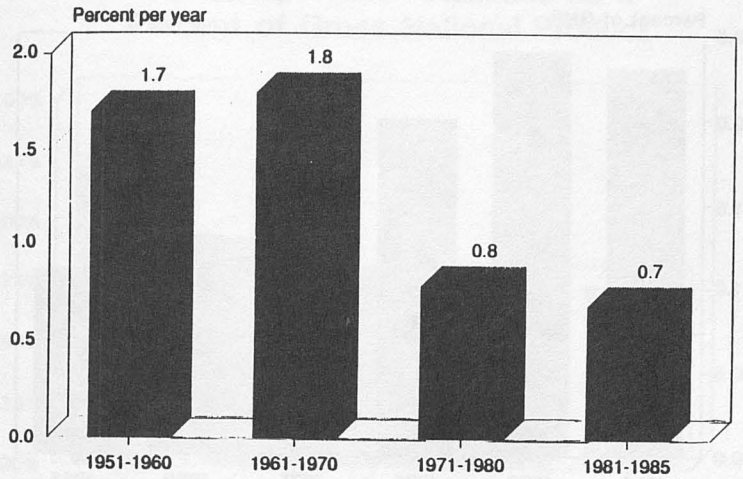
One means of gaining a broader perspective of the drop-off in public investment is to compare public works capital outlays, over time, as a percentage of gross national product. Again, as mentioned earlier, there was a drop-off in this relationship since 1965. For example, there was a drop from almost 2-1/2 percent of GNP being devoted to public infrastructure in 1965 to less than one percent in 1985. Now, if we consider investment in transportation, we find a similar pattern.

In 1970, we were investing almost 1.25 percent of our gross national product in transportation facilities. That dropped to less than 1 percent in 1975. The lowest percentage of transportation investment, as a percent of GNP, occurred in 1985 when it was about .7 percent. We have had some marginal increase in the percent of GNP devoted to transportation investment as well in the percent devoted to general public infrastructure since that time. We also can consider "all" highway expenditures and note the same general patterns. So, the basic message is that it appears that we're reducing our commitment to investment in the capital assets that the public sector must provide in order to assist the private sector enhance productivity growth. That effect of this pattern is that our overall productivity growth rate has declined, due to under-investment (the same phenomenon that's occurring generally in the United States throughout the private sector economy).

It also is interesting to see how state government is doing in this regard and to put that into perspective as well. To do so, I'd like to broaden the concept of investment. We've just gone through a session of the General Assembly with a lot of public discussion about investment, not only in education, but in infrastructure as well. Nationally, the latest data we have on state investment is between 1970 and 1980. In real terms, we're actually investing less in 1980 than we were in 1970 in infrastructure. In fact, in real terms we're investing only about $15.1 billion in 1980 as compared to $23 billion. So this phenomenon of reducing investment seems to be a common characteristic of that decade. By contrast, state governments were increasing their expenditures for other service programs such as human service programs and other programs that don't have the same kind of impact on future economic productivity, as does infrastructure investment.

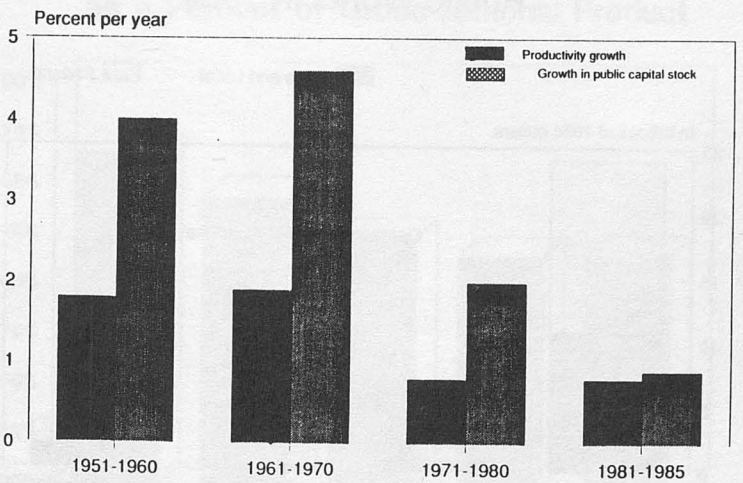
In summary, infrastructure investment and economic development are intricately linked. The linkage is most prominent in terms of potential cost reductions for private sector production and enhanced competitiveness. Unfortunately, investment trends and productivity trends of the past two decades suggest that the U.S. economy may be "slipping" in terms of investment in infrastructure (including transportation) and indirectly, in productivity. Such trends do not auger well for the future. Moreover, such trends suggest that we should fundamentally re-assess our investment goals if we are to have and maintain a viable, competitive economy into the '90s.

U.S. Productivity Growth



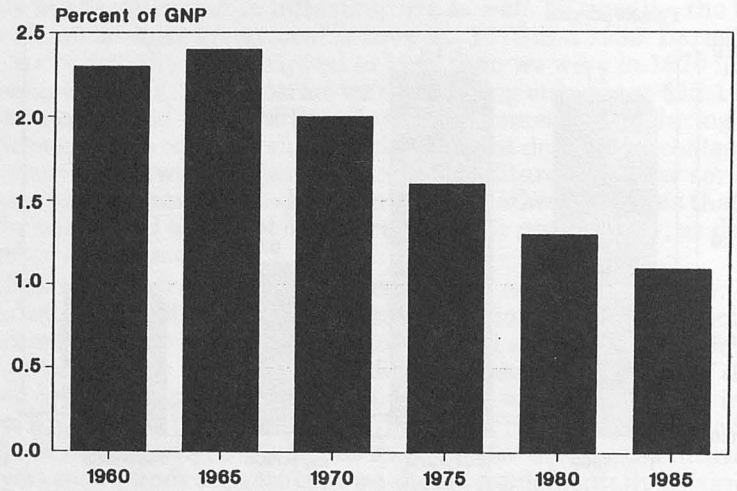
Source: U.S. Department of Commerce,
Office of Economic Affairs, July 1987.

U.S. Productivity Growth and Public Capital Accumulation



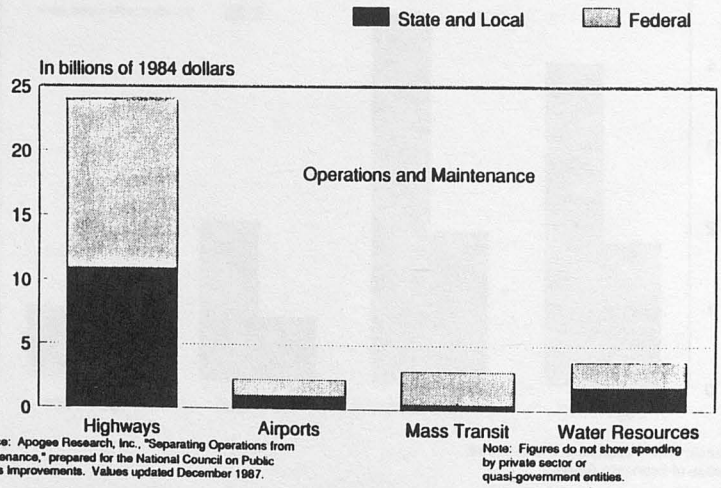
Source: U.S. Department of Commerce,
Bureau of Economic Analysis

Public Works Capital Outlays as a Percentage of GNP



Source: National Council on Public Works Improvement, *Fragile Foundations: A Report on America's Public Works*, 1988.

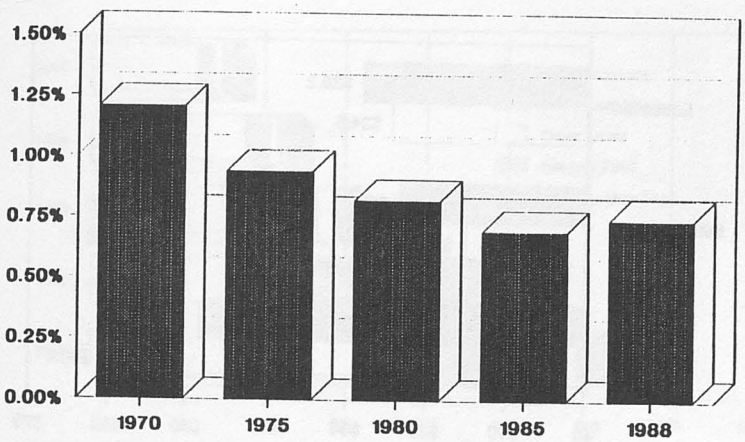
Government Outlays for Transportation Public Works in 1984



Source: Apogee Research, Inc., "Separating Operations from Maintenance," prepared for the National Council on Public Works Improvements. Values updated December 1987.

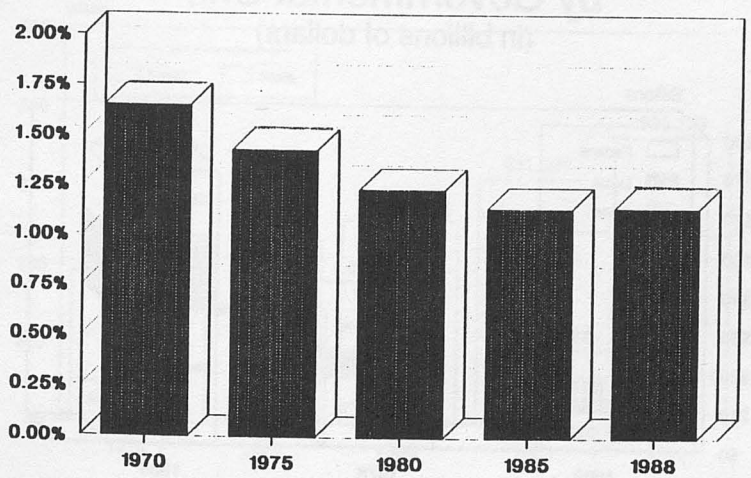
Note: Figures do not show spending by private sector or quasi-government entities.

Government Capital Expenditures on Transportation Facilities as a Percent of Gross National Product



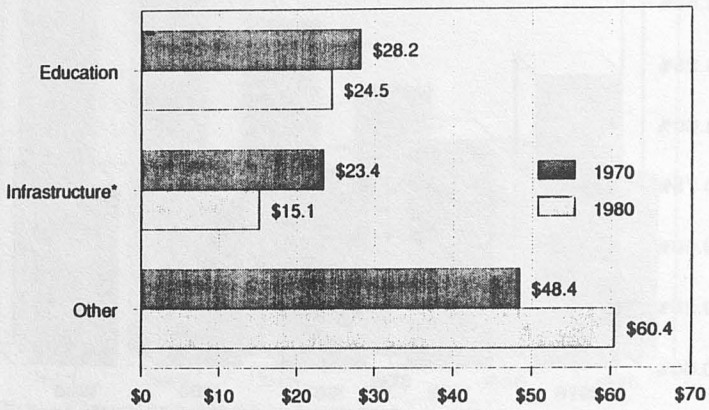
Source: U.S. Dept. of Commerce, Bureau of Census

Government Highway Expenditures as a Percent of Gross National Product



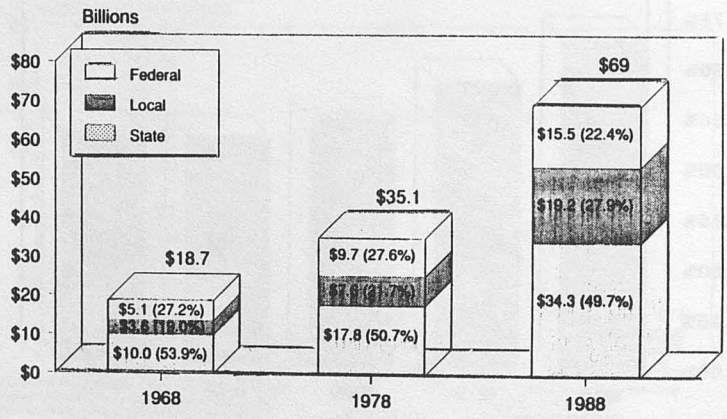
Source: U.S. Dept. of Commerce, Bureau of Census

State Government Direct General Expenditure by Function (in billions of dollars)

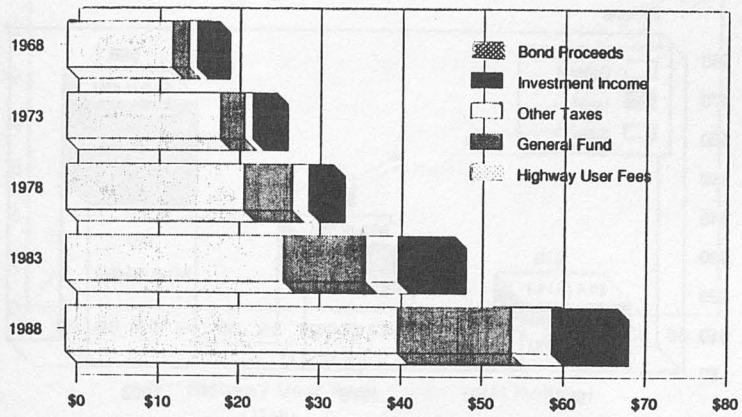


*Transportation, Sewerage, & Sanitation

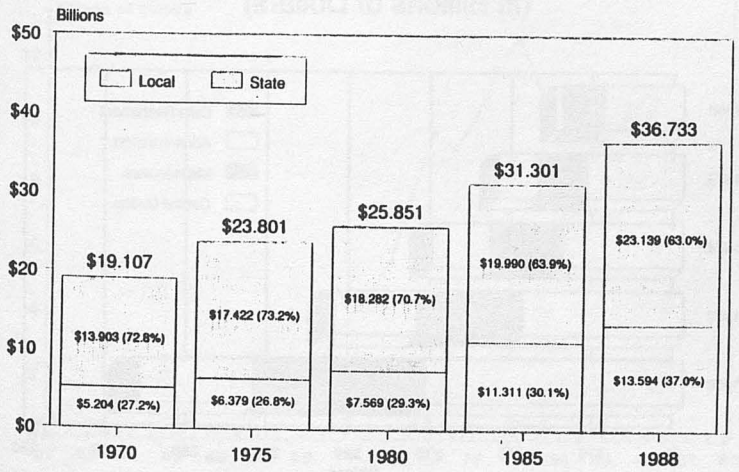
Highway Receipts by Governmental Unit (in billions of dollars)



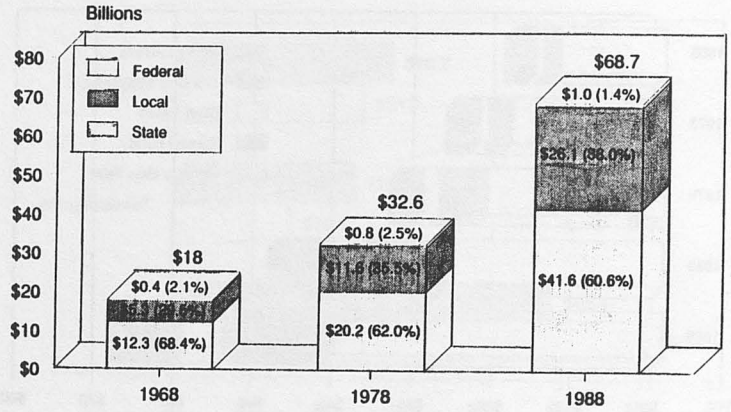
Highway Receipts by Category
1968-1988
(in Billions of Dollars)



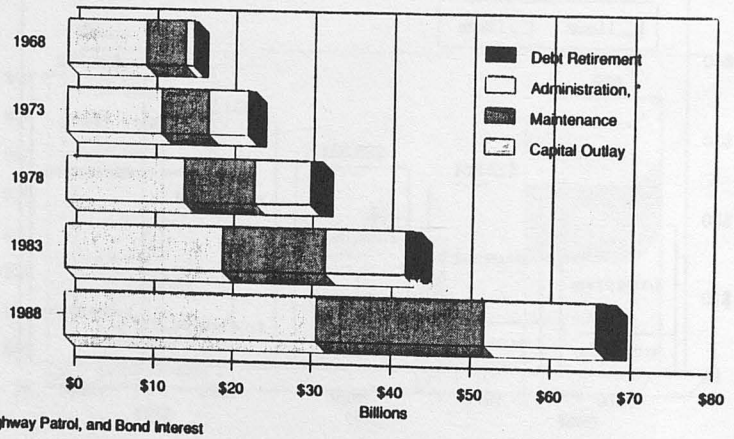
Public Highway Debt Outstanding
State and Local Governments



Highway Expenditures by Governmental Unit
(in billions of dollars)

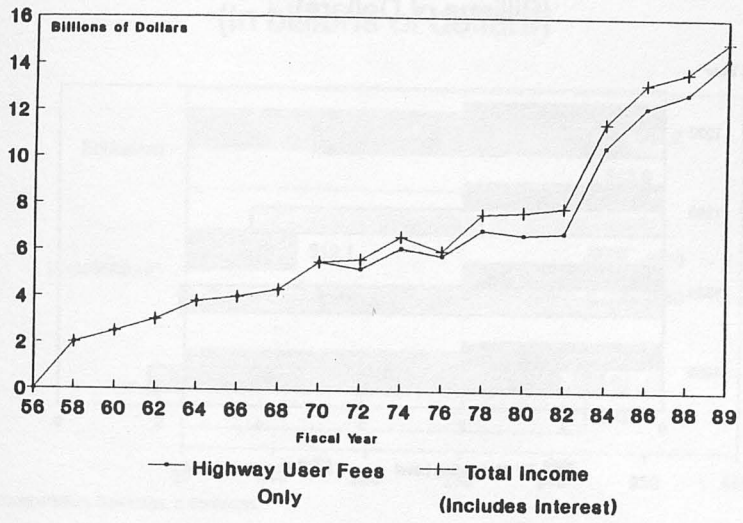


Highway Expenditures by Function 1968-1988
(in Billions of Dollars)

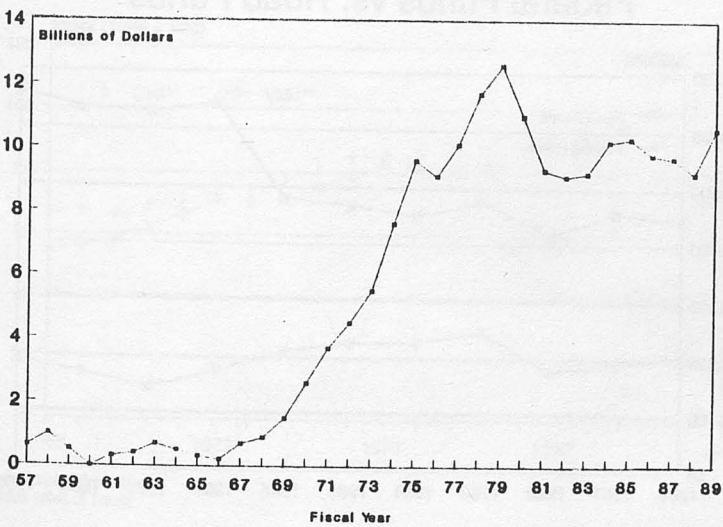


*Highway Patrol, and Bond Interest

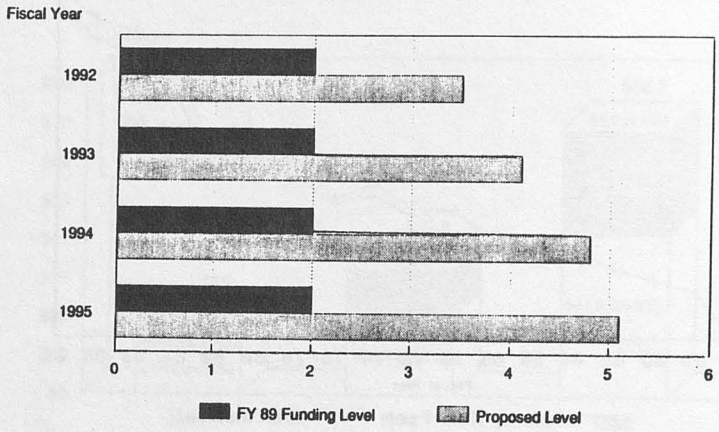
Highway Trust Fund Income



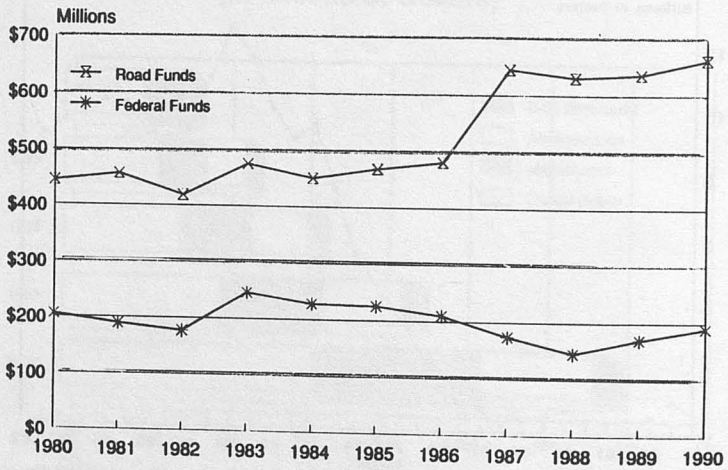
Highway Trust Fund Balance



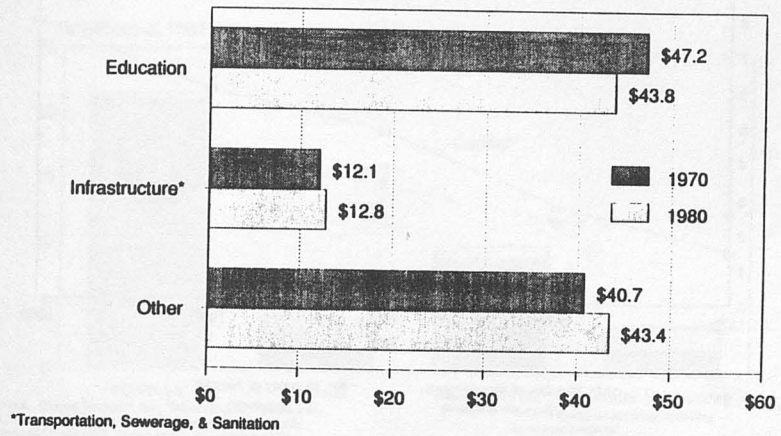
AASHTO Proposal for Federal Transit Capital Funding (Billions of Dollars)



Kentucky Transportation Obligations Federal Funds vs. Road Funds

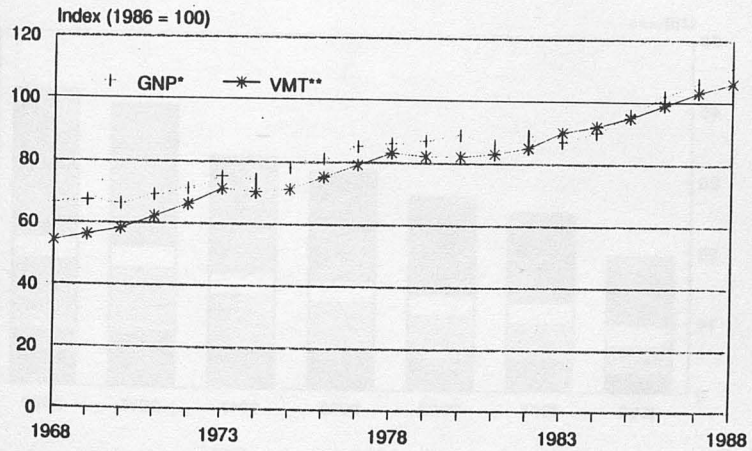


Local Government Direct General Expenditure by Function (in billions of dollars)



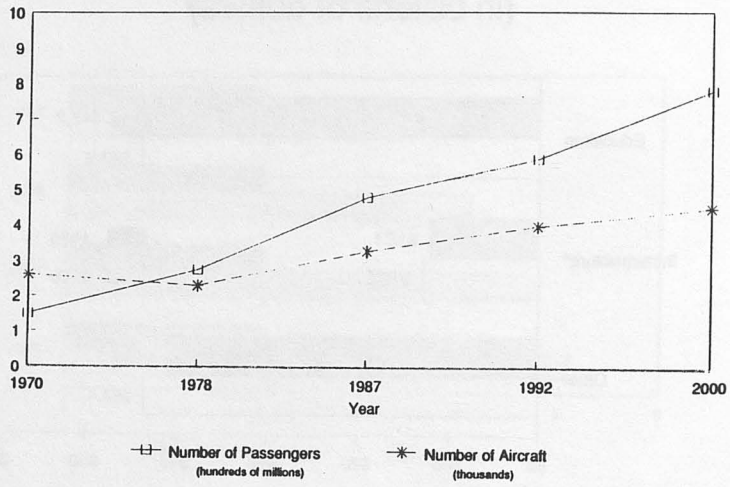
*Transportation, Sewerage, & Sanitation

Gross National Product and Travel Relationship

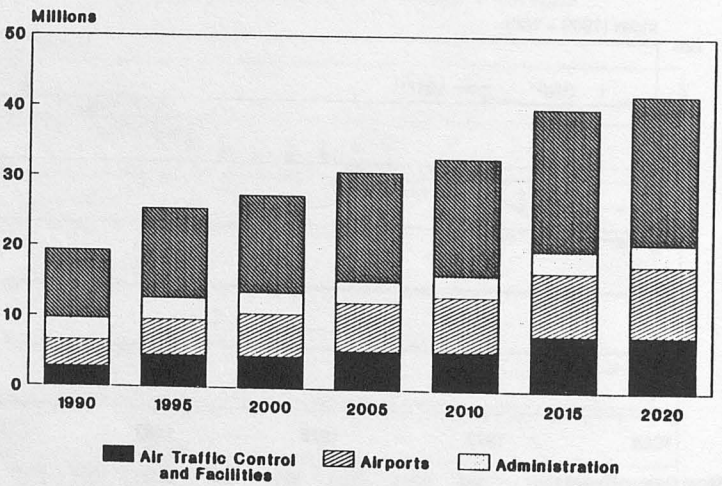


*Gross National Product
**Vehicle Miles of Travel

FAA Projections
Aircraft and Passengers 1970-2000

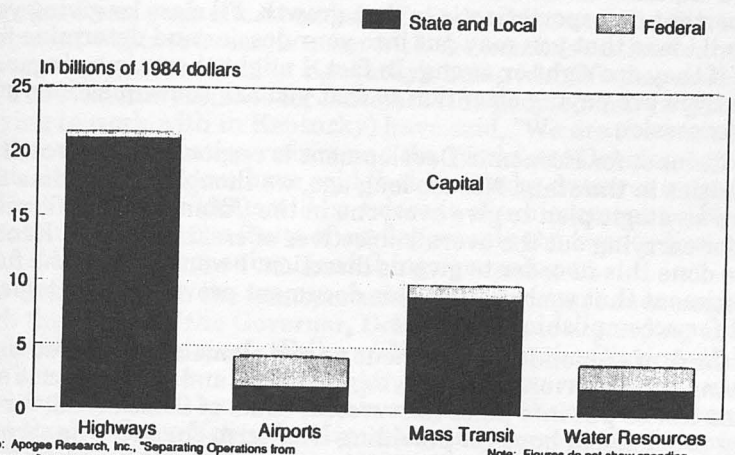


Investment Needs By Category
(Uninflated - Millions of Dollars)



SOURCE: AASHTO Aviation Needs Task Force

Government Outlays for Transportation Public Works in 1984



Source: Apogee Research, Inc., "Separating Operations from Maintenance," prepared for the National Council on Public Works Improvements. Values updated December 1987.

Note: Figures do not show spending by private sector or quasi-government entities.